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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO. KM
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UNITED STATES DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231

EXAMINER

ART UNIT	PAPER NUMBER
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DATE MAILED:

1977-01 3

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/752,227Applicant(s)
Johnson et al.Examiner
Calle ShoshoArt Unit
1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Dec 29, 2000
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 57-78 is/are pending in the application.
- 4a) Of the above, claim(s) 73-78 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 57-72 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claims 57-78 are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 20) ☐ Other

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DETAILED ACTION

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 57-72, drawn to modified pigment and ink composition, classified in class 523, subclass 160.
- II. Claims 73-78, drawn to printing plate and method of imaging printing plate, classified in class 101, subclass 453.

2. The inventions are distinct, each from the other because:

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the different inventions have different functions, effects, and modes of operation. The invention of group I is drawn to a modified pigment and ink composition while the invention of group II is drawn to a printing plate and method of imaging printing plate. The inventions have different functions and effects because the modified pigment is a product used as a colorant in order to produce a colored composition and the ink is a colored composition used as a coating to produce a written or printed image, while printing plate is a device used to transfer ink to substrate. The inventions have different modes of operation because the pigment is a component mixed in any

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type of composition, i.e. ink, paint, adhesive, etc. and the ink is utilized in a pen, marker, ink jet ink, gravure printing apparatus, etc, while printing plate transfers ink from ink fountain to plate to substrate.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and/or have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Michelle Lando on 9/10/01 a provisional election was made with traverse to prosecute the invention of Group I, claims 57-72. Affirmation of this election must be made by applicant in replying to this Office action. Claims 73-78 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 57-72 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) Claims 57 and 65 each recite "wherein "polymer" represents repeating monomer groups or multiple monomer groups or both". The scope of the claim is confusing because it is not clear what is meant by polymer "represents" repeating monomer groups. Polymers are obtained from or polymerized from monomers so it is not clear how a polymer is represented by monomers. Clarification is requested.

(b) As seen in (a) above, claims 57 and 65, as well as claims 68 and 69, each recite "polymer" wherein polymer is in quotes. The scope of the claims is confusing because it is not clear what is encompassed by this terminology and why the recitation is in quotes. Clarification is requested.

(c) Claim 69 recites "wherein said "polymer" is a polyolefin group, a polycarbonate group...". The scope of the claim is confusing because it is not clear how the polymer is a polyolefin "group". Does the polymer comprise an olefin group? Further, it is not clear exactly

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how this claim differs from claim 68 which recites "wherein said "polymer" is a polyamide, a polycarbonate...". Clarification is requested.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

9. Claims 57-59 and 62-72 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsang et al. (U.S. 6,150,433).

Tsang et al. disclose a modified pigment product comprising a pigment having attached at least one aromatic or alkyl group, i.e. presently claimed X, which itself is substituted with a polymer such as poly(meth) acrylic acid, polystyrene, and polyalkyl (meth)acrylate wherein the alkyl (meth)acrylates from which the polymer is obtained possesses an alkyl group, i.e. presently claimed X'. Further, there is also attached to the pigment another chemical group which comprises a carboxylic group or sulfonate group such as carboxyphenyl or sulfophenyl group. There is also disclosed an ink jet ink which comprises the above pigment (col.3, lines 17-28 and

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49-62, col.4, lines 1-5 and 38-64, col.5, lines 9-23, col.6, lines 1-10, col.9, lines 55-col.10, line 30, and col.13, 24-26).

In light of the above, it is clear that Tsang et al. anticipates the present claims.

10. Claims 57-59 and 62-72 are rejected under 35 U.S.C. 102(e) as being anticipated by Moffatt et al. (U.S. 6,221,932).

Moffatt et al. disclose a modified pigment product comprising a pigment having attached at least one aromatic or alkyl group, i.e. presently claimed X, which itself is substituted with a polymer such polyvinyl alcohol and monoalkyl ether of polyethylene glycol or poly(hydroxyalkyl) methacrylate either of which possess an alkyl group, i.e. presently claimed X'. Further, there is also attached to the pigment another chemical group which comprises a carboxylic group or sulfonate group such as carboxyphenyl or sulfophenyl group. There is also disclosed an ink jet ink which comprises the above pigment (col.2, lines 8-16, col.3, line 35-col.4, line 6, col.4, line 30-col.5, line 56, and col.7, lines 52-55).

In light of the above, it is clear that Moffatt et al. anticipates the present claims.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 60-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsang et al. (U.S. 6,150,433) or Moffatt et al. (U.S. 6,221,932) either of which in view of Belmont (U.S. 5,672,198).

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The disclosures with respect to Tsang et al. or Moffatt et al. in paragraphs 9 and 10 respectively are incorporated here by reference.

The difference between either Tsang et al. or Moffatt et al. and the present claimed invention is the requirement in the claims of alkyl or aromatic group (X) which is substituted with functional group.

Belmont, which is drawn to ink jet ink, disclose the use of pigments which have attached alkyl or aromatic groups which are substituted with functional group such as carboxylic or sulfonate group wherein the motivation for using such groups is to produce a pigment with good dispersion stability and an ink with good print quality and optical density (col.2, lines 60-67, col.4, lines 10-31, and col.5, lines 1-15).

In light of the motivation for using substituted alkyl or aromatic groups on pigments disclosed by Belmont as described above, it therefore would have been obvious to one of ordinary skill in the art to use such substituted groups on the pigment of either Tsang et al. or Moffatt et al. in order to produce a pigment with good dispersion stability and an ink with good print quality and optical density, and thereby arrive at the claimed invention.

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lin (U.S. 5,281,261) disclose a polymer which is attached to a pigment, however, there is no disclosure of an attached alkyl or aromatic group as presently claimed.


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Ikeda et al. (U.S. 5,952,429) disclose a pigment to which is attached functional groups to which is attached the reactive group of a polymer, however, there is no disclosure of an attached alkyl or aromatic group as presently claimed.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie Shosho whose telephone number is (703) 305-0208. The examiner can normally be reached on Mondays-Thursdays from 7:00 am to 4:30 am. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3599.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Callie Shosho
9/18/01

VASU JAGANNATHAN
SUPERVISOR
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